

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference P03137/S	FOR FURTHER ACTION	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/NZ03/00141	International filing date (<i>day/month/year</i>) 4 July 2003	(Earliest) Priority Date (<i>day/month/year</i>) 5 July 2002
Applicant SYFT TECHNOLOGIES LIMITED <i>et al.</i>		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (See Box II).

4. With regard to the title, ☒ the text is approved as submitted by the applicant.
☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract, ☐ the text is approved as submitted by the applicant
☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No. 1

☒ as suggested by the applicant.

☐ None of the figures

☐ because the applicant failed to suggest a figure

☐ because this figure better characterizes the invention

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)**ABSTRACT**

A direct comparison of the antioxidant activities of various pure compounds (eg., Trolox® (6-hydroxy-2,5,7,8-tetramethylchroman-2-carboxylic acid) or ascorbic acid), extracts and biological fluids (eg. human plasma) can be effected by means of a standardisable, objective method of determining and measuring the antioxidative and oxidative radical scavenging activities of natural or synthetic substance, including the measurement of an indicator reaction product gas, ethylene, in the reaction headspace using Selective Ion Flow Tube Mass Spectrometry (SIFT-MS). This method assays ethylene liberated from α -keto- γ -methiolbutyric acid (KMBA) on reaction with peroxy radicals, other radicals or other reactive oxygen species that can oxidise KMBA to ethylene. From the production rate and concentration of the ethylene, the total antioxidant activity of an added analyte in question and its rate of reaction with the oxidative free radicals may be determined.

A. CLASSIFICATION OF SUBJECT MATTERInt. Cl. ⁷: G01N 27/62, 33/00, 31/00, H01J 49/00.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC. Int Cl. ⁷ G01N 27/62, 33/00, 31/00, H01J 49/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Derwent (WPAT and JAPIO), Chemical abstracts**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	Proceedings of the 49 th ASMS Conference on Mass Spectroscopy and Allied Topics, Chicago, Illinois, May 27-31, 2001, "Real Time in vivo Measurement of VOCs by SIFT-MS", P. F. Wilson <i>et al.</i> (see entire document)	
Y	<i>Medical & Biological Engineering & Computing</i> (1996), 34, 409-419, "Selected ion flow tube: a technique for quantitative trace gas analysis of air and breath", P. Španěl and D. Smith. (see entire document, in particular pages 409- 410 and page 413 column 1))	1-6
Y	<i>Free Radical Biology & Medicine</i> , (1998), 24, (3), 480-493, "A Rapid Gas Chromatographic Assay for Determining Oxyradical Scavenging Capacity of Antioxidants and Biological Fluids", Gary W. Winston <i>et al.</i> (see page 481 column 2, page 482 column 1 to column 2 line 4, page 487 column 2 (Discussion), and page 491 column 2 lines 6-10).	1-6

☒ Further documents are listed in the continuation of Box C☐ See patent family annex

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search
13 October 2003Date of mailing of the international search report
29 OCT 2003

Name and mailing address of the ISA/AU

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<i>Rapid Communications in Mass Spectrometry</i> , (1996), 10, 1183-1198, "The Novel Selected-ion Flow Tube Approach to Trace Gas Analysis of Air and Breath", D. Smith and P. Spanel (see entire document, in particular pages 1183-1184, page 1191 column 2 to page 1192 column 1, Figures 9 and 10 and page 1194)	1-6
A	<i>Redox Report</i> , (2001), 6 (3), 185-187, "Real time analysis of breath volatiles using SIFT-MS in cigarette smoking", S. T. Senthilmohan <i>et al.</i> (see entire document)	1-6